

### Assumptions and General Comments about the Matrix

The matrix is a summary of nearly 100,000 records dating from 1988 for onshore RIK contracts and 1994 for offshore contracts. These records are taken from 2014 data that was actually billed by month from the RIK section. In many cases, records were incomplete and assumptions had to be made:

#### Onshore:

All records and values were compared to the Wyoming Sweet Spot Price as reported for each month in Platt's Oilgram. This oil's gravity is 39E API. Gravity adjustments were made to match the RIK oil to the spot price via Amoco's onshore gravity adjustment scale of \$.15 per degree.

In many cases, gravity was not reported to MMS. In these cases, we took an average gravity for the unit or area and applied it to the leases that were absent gravity. If there was no gravity reported for the unit or area, we used the average gravity from all leases in the particular contract.

No additional deductions or allowances for transportation were taken.

#### Offshore:

All oil taken in kind offshore was categorized as to oil type (LLS, HLS, EI) and compared to the appropriate spot price as reported in Platt's Oilgram. Gravity adjustments were made using Shell's offshore adjustment scale found in their posted price bulletins (\$.15 per degree above 45E and below 35E and \$.02 per degree between 35E and 40E).

In some cases, gravity was not reported, or it fell out of a range of 15E to 59.9E. We used a weighted average gravity by area (taken from 1996 Form 2014 data) and applied it to the gravity-absent leases (ex. High Island was 36.6 degrees, etc.).

Transportation allowances were made to equate the spot price to the location where the oil was delivered. We used FERC tariffs where they existed, and this covered the majority of the oil. However there were some delivery points where a tariff was not available, in these cases we used a value of \$.50 to approximate transportation.

Pacific RIK leases were not included in this estimate. They may be done separately if needed.

#### Audit Burden:

We used an estimate of 1.29 hours per lease month for audit burden. This number is based on an estimate of 62 hours per lease for a one-year audit (two sample months at 31 hours per month). This equates to 5.2 hours per month per lease. We assumed that only 25% of the leases would be selling oil at arm's-length and would thus be the focus of any audit work. Therefore 25% of 5.2 left us with 1.29 hours per lease as a general estimate of audit burden.

The only leases that we had record of being audited are the Rangely, Colorado leases, and the Hartzog Draw, Wyoming, leases. We know that Rangely was a complete value audit, but we do

not know if Hartzog Draw was value and volume or only volume. We were not aware of any audit work offshore.

Collection Risk:

The matrix contains no collectability estimates, although they could easily be added.

Database Format:

This data is in an Access database that can be manipulated if other work is needed. See Mary Turton for specifics.

## SUMMARY OF POTENTIAL LIABILITY FOR RISK VALUATION ADJUSTMENTS

12/17/98

CONTRACT	HEADQUARTERS LOCATION	CONTRACT DATES	REMAINING IN PROGRAM	Sales Covered	BARRELS TAKEN	BILLED AMOUNT	ADJUSTED AMOUNT	POTENTIAL LIABILITY	SURETY Released?
AGE Refining	San Antonio, TX	Jan 93-Jul 97	No	Offshore-Gulf	4,537,951.98	\$87,159,663.94	\$92,316,270.67	\$5,156,606.73	No
Barrett Refining	Shawnee, OK	May 95-Nov 95	No	Offshore-Gulf	1,855,881.86	\$31,913,010.86	\$33,768,892.72	\$1,855,881.86	
Gary-Barrett Refining	Denver, CO	Dec 95-Apr 99	Yes	Offshore-Gulf	7,633,241.16	\$155,817,001.23	\$163,448,320.97	\$7,631,317.74	No
Calcasieu Refining	Houston, TX	Nov 94-Apr 99	Yes	Offshore-Gulf	9,316,975.22	\$162,655,809.59	\$183,526,919.34	\$20,871,109.75	No
Canal Refining	Tulsa, OK	Feb 95-May 97	No	Offshore-Gulf	443,361.74	\$8,248,037.81	\$9,065,137.14	\$817,099.33	Yes
Gary-Williams Refining	Denver, CO	Nov 94-Apr 99	Yes	Offshore-Gulf	6,336,588.65	\$106,487,337.44	\$121,556,482.25	\$15,069,144.81	No
Giant Industries	Scottsdale, AZ	Nov 94-Apr 99	Yes	Offshore-Gulf	9,748,996.31	\$179,790,757.41	\$188,977,778.71	\$9,187,021.30	No
Gold Line Refining	Houston, TX	Feb 95-Jun 97	No	Offshore-Gulf	5,327,844.11	\$103,161,883.04	\$108,110,917.91	\$4,949,034.87	Yes
LL&E	New Orleans, LA	Nov 94-Jul 96	No	Offshore-Gulf	4,935,856.74	\$88,309,009.69	\$93,922,065.26	\$5,613,055.57	Yes
Placid Refining	Port Allen, LA	Nov 94-Apr 99	Yes	Offshore-Gulf	9,824,698.37	\$174,641,151.77	\$191,817,103.29	\$17,175,951.52	No
				Total Offshore-Gulf	59,961,396.14	\$1,098,183,664.78	\$1,186,509,888.26	\$88,326,223.48	
U.S. Oil and Refining	El Segundo, CA	Aug 95-Apr 99	Yes	Offshore-Pacific	17,218,629.55	\$214,341,344.30			
Total Offshore:			6		59,961,396.14	\$1,098,183,664.78	\$1,186,509,888.26	\$88,326,223.48	
Big West Oil Company	North Salt Lake, UT	May 87-Jun 98	No	19-ND, 25-UT, 26-WY	6,663,384.80	\$117,935,461.98	\$125,896,672.64	\$7,961,210.66	No
Gary-Williams Refining	Denver, CO	Jun 87-Sep 97	No	49-WY, 2-MT	3,947,237.09	\$58,262,283.87	\$67,962,366.67	\$9,700,083.80	No
Sinclair Oil	Salt Lake City, UT	May 87-Mar 97	No	1-CO, 9-MT, 77-ND, 1-UT, 239-WY	17,828,617.55	\$311,468,709.22	\$324,337,614.79	\$12,868,906.57	No
Wyoming Refining	Denver, CO	May 87-Jun 97	No	17-CO, 22-MT, 3-ND 27-WY	13,433,568.52	\$233,648,549.18	\$244,318,587.28	\$10,670,039.10	No
Total Onshore:			0		41,872,807.96	\$721,315,001.25	\$762,515,241.39	\$41,200,240.14	
Total					101,834,204.10	\$1,819,498,666.03	\$1,949,025,129.65	\$129,526,463.62	

Notes: U.S. Oil is not included as the Adjusted Amount has not yet been determined

The methodology used for this information is not the same as negotiated under the new contracts.  
This information supersedes the earlier \$140 million estimate (duplicate records removed) and  
the \$121 million. This information includes data through sales month 3/98. Hartzog Draw has  
been included on the Sinclair contract (see assumptions). Average price was used for Feb and March 98 data.

AVERAGE  
INCREASE  
PER BARREL

\$1.14

\$1.00

\$2.24

\$1.84

\$2.38

\$0.94

\$0.93

\$1.14

\$1.75

\$1.47

\$1.19

\$2.46

\$0.72

\$0.79

\$0.98